IN THE UNITED STATES DISTRICT COURT FOR THE DISTRICT OF NEW MEXICO

UNITED STATES OF AMERICA.

Plaintiff,

vs. No. CR 03-2365 JB

DANIEL SHADOWHAWK FOGHORN,

Defendant.

AMENDED MEMORANDUM OPINION AND ORDER

THIS MATTER comes before the Court on the: (i) United States' Motion *in Limine* for *Daubert* Ruling Regarding the Admissibility and Scope of Defendant's Proposed Expert Witness, filed May 25, 2005 (Doc. 161); (ii) United States Motion *in Limine* for *Daubert* Ruling Regarding the Admissibility and Scope of Defendant's Proposed Expert Testimony of Dr. Don Seelinger, filed June 20, 2005 (Doc. 170); and (iii) United States Renewed Motion *in Limine* for *Daubert* Ruling Regarding the Admissibility and Scope of Defendant's Proposed Expert Testimony of Dr. Don Seelinger, filed July 13, 2005 (Doc. 176). The Court held an evidentiary hearing on this matter on July 6, 2005. The Court took the motion under advisement and did not rule at that time. Having reviewed Seelinger's expert reports and his testimony at the evidentiary hearing, the Court will grant the United States' motions in part and deny them in part.¹

¹ The Court filed previously a Memorandum Opinion and Order, which contained citations to the Court Reporter's unedited version of the July 6, 2005 hearing transcript. <u>See Memorandum Opinion and Order, filed July 25, 2005 (Doc. 188)</u>. The purpose of this Amended Memorandum Opinion and Order is to provide citations to the Court Reporter's final version of the hearing transcript.

BACKGROUND

The United States alleges that Paul Williams and Trevor Nez were involved in a fight during the early hours of October 25, 2003, and Nez left Williams in a semi-unconscious state at the fight's remote location. Later that night, Nez returned to where he had left Williams with Erickson Tso and Foghorn, at which point they inflicted additional trauma to Williams. No professional examined Williams between the initial fight with Nez and when all three Defendants returned to the attack scene and inflicted additional severe trauma. Williams' further trauma included at least the following: (i) being transported in an uncovered pickup truck's bed; (ii) being pulled by the feet from the bed of the pickup and dropped without support as the victim's head struck the ground; (iii) another half hour of beating by all three Defendants; (iv) being urinated on; and (iv) being soaked by beer; and (iv).

Before the first trial, Foghorn submitted a report that Dr. Barbara Joan McGuire prepared. McGuire used extrapolation of lactic acidosis and body temperature to support her conclusions that, in her expert opinion, to a reasonable medical probability, (i) the death of Williams was caused by the head injuries Williams sustained during the fight with Trevor Nez; and (ii) when Foghorn arrived, none of his activities contributed to the death of Williams and that Foghorn could not have done anything to prevent Williams' death. The Court held that McGuire's methods used to reach these conclusions were "unscientific and unreliable" and therefore excluded her testimony as to the timing of the injuries. See Amended Memorandum Opinion and Order at 7-8, filed June 15, 2005 (Doc. 168). Because, however, the United States did not challenge McGuire's qualifications as a medical expert, and because of her considerable medical experience, the Court permitted McGuire to testify, in her opinion, to a reasonable medical probability, that the head injuries Williams sustained, compounded by environmental exposure, dehydration, hypothermia and profound lactic acidosis,

caused his death. At the first trial, the United States called Dr. Jeff Nine, an associate medical examiner in Albuquerque's Office of the Medical Examiner, who testified that, based on the physical injuries present on Williams' body, it is not possible to tell which blow caused which injury, or which injury occurred before others. See Transcript of Jury Trial at 253:1-14 (taken October 25, 2004); id. at 254:25 - 256:8. The United States also presented testimony by Dr. Harry Bishara, an emergency room physician in Shiprock, that it was impossible to determine when Williams' injuries occurred because there were no physicians present to conduct an examination between each injury. See id. at 234:25 - 235:3.

In preparation for the re-trial, and pursuant to rule 16(c) of the Federal Rules of Criminal Procedure, Foghorn disclosed to the United States its proposed expert, Dr. Don F. Seelinger, a neurologist. On April 28, 2005, Foghorn's counsel provided to the United States a report that Dr. Seelinger had authored and his curriculum vitae. See Expert Witness Report by Don F. Seelinger MD (dated April 28, 2005)(hereinafter, "Seelinger's April 28, 2005 Report"). Seelinger states in his report that he has read medical reports, and reviewed photographs from the Officer of Medical Investigator and the transcripts of various witnesses, including Bishara's and Nine's trial testimony. Seelinger's proposed testimony involves his evaluation of injuries that Williams received before his death, and the causes and manner of his murder. The United States contends that Seelinger's proposed testimony is intended to reach the same conclusions relating to timing of Williams' death that McGuire proposed. Seelinger has an opinion about the time and manner of death, and about the relative contributions of the various assailants. Seelinger's April 28, 2005 report concludes:

This acute subdural hematoma was certainly the result of the blows to the head and occurred from the initial trauma. There was scant possibility of survival even if immediate neurosurgical intervention had been available.

* * * *

It is my opinion, to a reasonable degree of medical probability, that after the initial attack, the sequence of events had already progressed to the point where there was no possibility of survival. The remote location at the time of the injury and delay in transporting Mr. Williams, even under ideal circumstances, precluded recovery.

Seelinger's April 28, 2005 Report at 4. Dr. Seelinger thus reaches a conclusion that immediate neurosurgery would have presented a "scant possibility of survival." <u>Id.</u>

The United States represents that Foghorn has not yet disclosed the records that Seelinger generated in the course of his work and the substance of his planned testimony. The United States has not received any scientific reports or other information or data upon which Seelinger has relied to reach his conclusions. Other than to discuss some of the statements that witnesses made both at trial and before trial with Foghorn's counsel, Foghorn has not provided the United States with the scientific method or methods that Seelinger has used to determine when each injury was inflicted on the victim. At the hearing, the United States represented that Seelinger had provided it with five or six articles, but that none of those addressed the method employed by Seelinger in his conclusion when Williams' injuries became irreversible. See Final Transcript of Hearing at 71:3-7 (taken July 6, 2005)(hereinafter "Transcript").

The United States reviewed Seelinger's report and determined that it arrives at conclusions which need further explanation. The United States requested an interview with Seelinger, and Foghorn's counsel agreed to allow a pre-Daubert hearing interview.

In its first motion, the United States notified the Court of a pre-trial interview with Foghorn's proposed expert and reserved the right to request a hearing before trial regarding the admissibility and scope of the expert's testimony. The United States represented that, until it conducted such

interview, it was unable to determine, because of the vague nature of Seelinger's report, whether another expert is required or whether Seelinger will be challenged. The United States stated that the pre-Daubert hearing interview would likely occur in mid-June, and the United States promised that it would advise both Foghorn's counsel and the Court whether a Daubert hearing would be necessary. The United States reserved the right to move the Court to conduct a pre-trial hearing to determine whether Seelinger's testimony is admissible in whole or in part under rule 702 of the Federal Rules of Evidence and whether the testimony meets the Daubert line of cases' admissibility requirements. The United States requested the Court conduct a hearing, if necessary, before trial, at which the United States might examine Seelinger regarding his proposed testimony to promote efficiency at trial and to allow the Court to better determine the appropriateness of evidence to be presented to the jury. Foghorn's counsel did not oppose the first motion.

On June 10, 2005, Seelinger and Foghorn's counsel met with the United States to allow a full discussion of the content and basis of the expert's opinions. The United States requested additional records at that meeting, and Foghorn notified the United States that they would arrive soon. The United States has also reviewed Seelinger's report and discussed it with him.

In its second motion, the United States requests a hearing before trial regarding the admissibility and scope of Seelinger's testimony. The United States moved the Court to conduct a pre-trial hearing to determine whether the proposed expert's testimony is admissible in whole or in part under rule 702 of the Federal Rules of Evidence, and whether the testimony meets the <u>Daubert line</u> of cases' admissibility requirements. The United States requested, pursuant to <u>Kumho Tire Co.</u>, <u>Ltd. v. Carmichael</u>, 526 U.S. 137 (1999), that the Court exercise its "special gatekeeping obligation" and determine after a review of Seelinger's curriculum vitae whether Seelinger's proposed testimony

is admissible to any extent based on his qualifications and experience, and whether the methodology used to form his opinion has "a reliable basis in knowledge and experience" in his discipline. <u>Id.</u> at 152. <u>See United States v. Charley</u>, 189 F.3d 1251, 1261 (10th Cir. 1999).

The Court granted the United States' request for an evidentiary hearing, which it held on July 6, 2005. At the hearing, Seelinger identified three issues that Foghorn requested him to address: (i) the nature, severity and degree of the head injury; (ii) the explanation of some of the documented behaviors that Williams exhibited; and (iii) the point at which the situation became irreversible and beyond hope. See Transcript at 26:15-22. To prepare answers to Foghorn's inquiry, Seelinger reviewed prior testimony, medical reports and neurology, as well as used the information he has learned over the years about head injuries and other major brain disorders. See id. at 31:9-22. In reaching his conclusions, Seelinger relied on prior statements by witnesses to the events of that evening, including Foghorn's co-Defendant, Nez. When asked if this is the sort of information upon which doctors routinely rely, Seelinger responded that doctors, on a regular and routine basis, gleam information from patients, the family, observers, and documentation. See id. at 32:2-15. Seelinger admitted, however, that he had never seen a similar case which involved the combination of ingredients at work in this situation -- severe head injuries, intoxication, cold exposure and hypothermia, lactic acidosis, and an isolated location. See id. at 28:5-11. Seelinger proceeded to testify about the conclusions he reached on the first two issues -- the nature and severity of Williams' head injury and the explanation for various behaviors that Williams exhibited during the early morning hours of October 25, 2003. See id. at 33:25 - 42:21. In so far as the testimony discussed only these two issues, as opposed to predicting Williams' likelihood of survival during various specific stages of the morning hours, the United States did not have an objection to the testimony. See id. at 30:3-5;

United States Renewed Motion in Limine \P 4, at 3 ("The United States moves this Court to permit Dr. Seelinger to testify only to the first two portions of his testimony and to deny admission of the testimony related in the third portion of his testimony").

On the third issue, Seelinger testified that, in reaching his conclusion, he assumed that the time necessary from when someone decided to get Williams help to when Williams would arrive at a facility with appropriate neurological treatment would take approximately three to four hours. See id. at 43:15 - 44:14. Foghorn's counsel then asked Seelinger to explain at what point during the morning hours Williams' injuries became irreversible. Seelinger testified that, because the sequence of events, including Williams' brain swelling, was irreversible by the time Williams arrived at Navajo Medical Center, the safest way to make that determination was to extrapolate back from that time. See id. at 44:21-24. Seelinger admitted that he does not know the exact timetable of events and that no one was present to make scientific measurements until rescue workers arrived. See id. at 44:24 -45:3. Seelinger also explained that Williams had hypothermia when the rescue workers arrived, but stated that Williams exposure to the cold varied because of aggravating factors, including cold exposure because of the temperature, being transported in the back of a truck, and having wet clothes from being urinated on and having beer poured on him. See id. at 45:4-12. Seelinger admitted that he did not know an exact time, because, with lactic acidosis and other factors contributing to Williams' condition, it is a very complex issue. See id. at 45:12-16.

Seelinger then extrapolated back earlier into the morning to around approximately 1:00 or 1:30 a.m. when, as Seelinger testified, "the injury" occurred. <u>Id.</u> at 45:17-19. Seelinger explained that, had immediate medical attention been sought after the initial fight, Williams may have been able to survive. <u>See id.</u> at 45:19-24. In his testimony, Seelinger had also testified about the symptoms

and pathology that would have occurred after being hit in the head with a rock and having been kicked in the head. See id. at 46:22 - 47:10. Seelinger explained the associated pathological changes that take place with brain swelling and pressure. See id. at 47:3-10.

Seelinger continued to discuss events which allegedly occurred throughout the early morning hours, but admitted that only a few time points are accurate. See id. at 45:25 - 46:5. Seelinger also readily conceded that, while it is still possible to extrapolate between certain times, the events cannot be pinned down with accuracy. See id. at 46:10-12.

Foghorn's counsel then asked Seelinger to break the early morning hours into different periods and to discuss, at each particular period, whether there is still a possibility of saving Williams' life, taking into account that medical treatment with a neurosurgeon was at least three hours away. See id. at 47:11-17. Seelinger testified that, had immediate help been sought after the Nez fight, there may have been a chance of Williams' survival. See id. at 47:18-24. Seelinger then stated that, by the time the people returned to the scene of the beating -- which is presumably when Nez, Tso, and Foghorn arrived -- Williams' chances of recovery were drastically reduced. See id. at 47:25 - 48:6. By that time, according to Seelinger, Williams had an acute subdural hematoma, brain contusions, and a brain laceration, plus the effects of cooling and intoxication. See id. at 48:5-11. The next period Seelinger discussed was when Williams was left by the side of the road at Two Grey Hills and, by that time, it was to a medical probability impossible to save Williams. See id. at 48:17 - 49:2. The Court clarified with Foghorn's counsel that the testimony which Foghorn sought to introduce in response to the third issue was that, at the time Williams was left by the side of the road at Two Grey Hills, it was to a medical probability impossible to save him, and that Foghorn was not attempting to go back and establish "blow by blow" when Williams' injuries became irreversible. Id. at 50:16 -

51:4. Foghorn's counsel agreed. See id. Foghorn's counsel further admitted that it recognized that there is no "golden hour" when head injuries are involved, and that all Foghorn wants to demonstrate with Seelinger's testimony is that, as the time passed, the probability of Williams' survival was significantly reduced. Id. at 54:6-23. Moreover, when the Court asked Foghorn's counsel whether it was seeking to introduce evidence that Williams had a scant change of survival after the initial attack, Foghorn's counsel responded that Seelinger would testify about the head injury development to demonstrate that, for every minute Williams did not receive medical treatment, it became less probable that he would survive. See id. at 54:6-13.

On cross examination, Seelinger conceded that there is no medical way to determine which head injury occurred first -- to wit: the jaw or temporal or orbital injury -- but asserted that significant blunt force injuries to the head must have occurred to cause such injuries. See id. at 66:3-10. Seelinger also agreed that secondary injuries after an injury can worsen the situation, and that there can be serial and cumulative injuries. See id. at 68:10-11.

When the United States asked for scientific articles to support the extrapolation conducted by Seelinger to reach his conclusions, Seelinger responded that there are no specific articles available, and that he is basing the extrapolation on his experience and on that there was a head injury with development of brain swelling, progressive hypothermia, and continued deterioration of his condition from the time of the initial attack. See id. at 68:14-21. The Court, however, asked Seelinger whether doctors performed this extrapolation in settings other than preparing for litigation, to which Seelinger responded that doctors perform such an extrapolation in the reverse order -- observing people in the acute setting, and, based on the degree of the injuries, a doctor will tailor the treatment based on projections of the outcome. See id. at 69:2-20. In other words, on a day-to-day basis, doctors deal

with the same problem solving in a reverse direction. See id. at 69:25 - 70:4. During and after Seelinger's testimony, the United States objected that his testimony went beyond the scope of his April 28, 2005 report. See id. at 36:17-23; id. at 72:20 - 73:1. The United States also sought disclosure of the summary of facts upon which Seelinger based his assumptions. See id. Foghorn's counsel responded that there was not a written summary, but that she verbally recited the facts to Seelinger. See id. at 73:10-12. Foghorn agreed to submit an amended report to the United States and the Court. See id. at 75:6-13. The Court permitted the United States an opportunity to respond if it had any objections to the amended report. See id. at 84:8-20; id. at 85:4-10. On July 11, 2005, Foghorn supplied the United States and the Court Seelinger's amended report. See Seelinger's Expert Witness Report (dated July 11, 2005)(hereinafter "Seelinger's July 11, 2005 Report").

The primary difference between this report and the original April 28, 2005 report is that, reflecting the structure of the hearing's testimony, it enumerates and addresses three issues: (i) the nature and the severity of the injuries that Williams sustained; (ii) the explanation of Williams' various responses and behaviors that were observed after he suffered the head injuries; and (iii) the point after the injuries were inflicted at which the injuries were irreversible and fatal. See id. at 4-6. On the third issue, Seelinger sets forth a list of "assumptions about the times of certain key events which occurred on the morning of October 25, 2003." Id. at 4. Seelinger also assumed it would take approximately four-and-a-half hours to obtain the necessary medical treatment for Williams' injuries. See id.

Consistent with his in-court testimony at the evidentiary hearing, Seelinger assumes "[t]he initial fight and beating with a large rock occurred between 01:15 and 01:30 AM," and, had immediate medical treatment been sought, he could have survived. <u>Id.</u> The amended report adds, however, that severe, permanent brain damage would accompany his survival. <u>See id.</u> Seelinger next

assumes, based on prior testimony, that Nez, Tso and Foghorn returned to Turtle Rock after 3:30 a.m., and that by 4:00 a.m., the three men had transported Williams in an uncovered pickup truck bed. See id. The report also mentions that, when removed from the truck, "it was reported [that] the back of his head struck the ground." Id. Seelinger's amended report also discusses the conditions contributing to the cooling of Williams' body; however he admits: "There is no possible way to determine his body temperatures at varying times between 01:15 and 05:12 AM. Most living systems do not react in a linear [sic] or to a uniform degree to cold exposure and other environmental variations." Id. at 6.

Seelinger also addresses the brain swelling that Williams' closed head injury caused. See id. Seelinger, however, states that he "diligently looked for a published formula or method which would allow me to calculate the development of the brain swelling, but could find none." Id. Seelinger also notes that while the "usual situation is for brain swelling to develop gradually over a period of time," but that, "[o]n occasion, brain swelling can be abrupt, catastrophic and 'malignant." Id. Seelinger, however, states: "This was not the case here," referring to the abrupt brain swelling occurrence.

Seelinger's amended report concludes:

[I]t is my opinion to a reasonable medical probability that the hypothermia and brain swelling had begun and were developing from the time of the initial injury. Because of the time-to-treatment estimate and the severity of the head injury, it is also my opinion to a reasonable medical probability, that the combination of the severe head injury, the hypothermia and the brain swelling had reached an irreversible state by 3:30 AM when the three men arrived at the scene of the original beating, which is at least one hour before Paul Williams was found at the roadside. Even if they had immediately gone to the Two Grey Hills Trading Post (which required 15 minutes) and called 911, Paul Williams would have died en route to necessary medical treatment (03:30 plus four hours and 45 minutes evacuation time) gives projected time of arrival at an appropriate trauma center at 08:15 A.M. Mr. Williams died at 8:00 AM.

Id.

The United States filed a renewed motion *in limine* in response to Seelinger's amended report. The United States does not object to the admission of Seelinger's testimony on issue one or two as described in the amended report. The United States objects, however, to his testimony on the third issue: "At what point in time after the injuries were inflicted, did they reach a point of being irreversible and fatal?" The United States highlights that Seelinger admitted he could not locate a published formula calculating brain swelling development, and asserts that, by his own admission, he establishes that he does not base his opinions on commonly known methods which medical experts of any specialty use. The United States also avers that the inquiry's sole use is for litigation.

Moreover, although the United States does not challenge that Seelinger is a medical doctor and that he can testify to the two first issues, it contends that the third conclusion is not based on scientific fact and sounds in an area in which he is not qualified -- neurosurgery and pathology. The United States also criticizes the third conclusion on the ground that "[t]his opinion purports to state that the brain swelling had reached fatal proportions after the first attack, based on no scientific facts whatsoever about the status of the victim after the first attack." United States Renewed Motion *in Limine* ¶ 7, at 3. The United States also condemns Seelinger's reliance on statements by Foghorn and Nez in reaching his third conclusion. The United States maintains: "There is no scientific data whatsoever to establish clear lines between what injuries happened after the first attack and what happened when Defendant Foghorn arrived" Id. ¶ 8, at 4. The United States asserts that the Court should not permit Seelinger to testify about the order of the injuries inflicted upon Williams, because the conclusions are unreliable and not based on scientific inquiry.

DAUBERT RESPONSIBILITIES

A party may introduce expert scientific testimony, subject to the admissibility requirements under rule 702:

If scientific, technical, or other specialized knowledge will assist the trier of fact to understand the evidence or to determine a fact in issue, a witness qualified as an expert by knowledge, skill, experience, training, or education, may testify thereto in the form of an opinion or otherwise, if (1) the testimony is based upon sufficient facts or data, (2) the testimony is the product of reliable principles and methods, and (3) the witness has applied the principles and methods reliably to the facts of the case.

Fed. R. Evid. 702.

The Supreme Court of the United States, in <u>Daubert v. Merrell Dow Pharmaceuticals, Inc.</u>, 509 U.S. 579 (1993), clarified the scope of rules governing the use of expert testimony and the role of trial judges in determining the admissibility of the expert testimony. "[U]nder the Rules the trial judge must ensure that any and all scientific testimony or evidence admitted is not only relevant, but reliable." <u>Id.</u> at 589. In making this determination, the trial must evaluate whether the proffered expert testimony meets the following standard:

The subject of an expert's testimony must be "scientific . . . knowledge." The adjective "scientific" implies a grounding in the methods and procedures of science. Similarly, the word "knowledge" connotes more than subjective belief or unsupported speculation. The term "applies to any body of known facts or to any body of ideas inferred from such facts or accepted as truths on good grounds." Webster's Third New International Dictionary 1252 (1986). Of course, it would be unreasonable to conclude that the subject of scientific testimony must be "known" to a certainty; arguably, there are no certainties in science. But, in order to qualify as "scientific knowledge," an inference or assertion must be derived by the scientific method. Proposed testimony must be supported by appropriate validation--i.e., "good grounds," based on what is known. In short, the requirement that an expert's testimony pertain to "scientific knowledge" establishes a standard of evidentiary reliability.

<u>Id.</u> at 589-90 (citations and footnotes omitted). In addition, the trial judge must decide whether the

proposed expert testimony is relevant in that it is helpful to the jury in resolving a factual dispute.

<u>Id.</u> at 591-92 ("Rule 702's 'helpfulness' standard requires a valid scientific connection to the pertinent inquiry as a precondition to admissibility.").

Pursuant to rule 703, a qualified expert may use, rely on, and testify about evidence that may be inadmissible. Specifically, rule 703 provides that an expert may use facts or data that are inadmissible in evidence so long as those facts or data are of a type that experts in the particular field reasonably rely upon.

ANALYSIS

The Court will address the scope of Seelinger's expert testimony before trial to save unnecessary and lengthy hearings during trial out of the jury's presence.

I. THE COURT WILL PERMIT SEELINGER'S TESTIMONY ABOUT THE NATURE AND SEVERITY OF WILLIAMS' HEAD INJURIES, AND THE EXPLANATION OF VARIOUS RESPONSES WILLIAMS EXHIBITED.

The United States does not challenge that Seelinger is a medical doctor. Seelinger is a qualified neurologist. He may therefore testify regarding relevant medical issues within his areas of expertise. He is qualified to give opinions in this matter. In particular, the Court will allow Seelinger to testify about his opinions proffered in response to the first and second issues contained in his July 11, 2005 report. The United States does not object to this testimony, and, as a neurologist, he is qualified to testify about these matters.

- II. THE COURT WILL RESTRICT THE SCOPE OF SEELINGER'S TESTIMONY ON THE TIME PERIOD DURING THE MORNING HOURS ON OCTOBER 25, 2003 IN WHICH WILLIAMS' INJURIES BECAME IRREVERSIBLE.
 - A. SEELINGER'S EVIDENTIARY HEARING TESTIMONY WAS NARROWER IN SCOPE THAN THE AMENDED REPORT SUBMITTED ON JULY 11, 2005.

Seelinger's statements vary in scope and in specificity between the initial April 28, 2005 report, his evidentiary hearing testimony, and the July 11, 2005 report. The April 28, 2005 report concludes that, "to a reasonable degree of medical probability, [] after the initial attack, the sequence of events had already progressed to the point were there was no possibility of survival." Seelinger's April 28, 2005 Report at 4. The report did not include a summary of assumed facts or any projection of the particular time at which, during the early morning hours, Williams' chances of survival became to a medical probability impossible.

At the evidentiary hearing, however, Seelinger, at the request of counsel, assumed that various events occurred at certain times, and then projected the probability of Williams' survival at various periods during the early morning hours. Importantly, Seelinger testified about two conclusions: (i) after the initial fight with Nez, which presumably involved Nez hitting Williams in the head with a rock, if immediate medical treatment were sought, Williams had a possibility of survival; and (ii) when Williams was left by the side of the road at Two Grey Hills, it was to a medical probability impossible to save him. The Court questioned Foghorn's counsel to clarify whether Foghorn was attempting to introduce evidence that Williams had no possibility of survival after the initial attack or because of a particular blow in the initial attack. Foghorn's counsel assured the Court that Seelinger's testimony relates to Williams being left at the side of the road, and explained that it wished to introduce evidence about the head injury development and about how, with each minute without medical care, Williams chances of survival were greatly reduced. After the Court agreed to let Foghorn submit an amended report, however, Foghorn's counsel admitted that she needed to reconcile Seelinger's testimony at the evidentiary hearing -- that after being left at Two Grey Hills

there was no chance of survival -- with what she contended Seelinger stated in his April 28, 2005 report -- that when Nez, Tso and Foghorn returned to Turtle Rock, there was no possibility of Williams' survival. See Transcript at 82:14-23.

The amended report contains a list of facts Seelinger assumed and an explanation of the time-to-treatment estimate. Seelinger concludes that the hypothermia and brain swelling began and were developing since the time of the fight with Nez. Seelinger testified about this conclusion at the evidentiary hearing. The July 11, 2005 report, however, continues that it is also Seelinger's opinion that, when Nez, Tso, and Foghorn returned to Turtle Rock at 3:30 a.m., Williams' injuries had reached an irreversible state. This conclusion is beyond the scope of Seelinger's evidentiary hearing testimony. Moreover, it is not consistent with Foghorn's counsel's representations to the Court at the hearing about the scope of Seelinger's testimony.

B. THE COURT WILL LIMIT SEELINGER'S TESTIMONY ABOUT THE TIME AT WHICH WILLIAMS' CONDITION BECAME IRREVERSIBLE.

The primary issue is the scope of his testimony on the third issue addressed in his July 11, 2005 report. The United States contends that the areas noted in his report on the third issue and provided to the United States are "far" beyond any medical doctor's expertise. The United States avers that a determination of who inflicted injury and in what order cannot be medically determined under the case's circumstances and would not be a legitimate or common inquiry of the medical profession. The United States maintains that, as a general proposition, forensic pathologists refuse to come to conclusions about the timing of closely related injuries. The United States also asserts that Seelinger, in arriving at his conclusions, must rely on information that experts in the field of forensic pathology do not use. Moreover, the United States alleges that Seelinger's conclusions are

outside the area of his expertise and beyond the scope of recognized expert testimony.

The United States alleges that Seelinger provides no basis, other than discussions with Foghorn's counsel and possibly with Dr. McGuire, for how he determined the timing and order of the injuries to the victim. Given that no medical professional examined Williams after the initial fight with Nez and before the three defendants returned to scene and inflicted additional trauma, Seelinger must have reached his opinions of timing based on information that Foghorn's counsel or Dr. McGuire provided to him. At the hearing, Foghorn's counsel represented that she provided an oral summary of the incidents which occurred during the early morning hours of October 25, 2003. In his report, Seelinger also indicates that he reviewed the trial testimony of Foghorn, Nez, and Crystal Talk. From these materials, Seelinger made various assumptions of certain key points during the event and, based on those assumptions, drew conclusions about Williams' medical condition. Thus, Seelinger laces facts throughout the third issue's conclusion based on Foghorn's counsel's rendition of events and on the trial testimony of various witnesses. Seelinger does not attempt to disguise the basis upon which he is basing his conclusions; to the contrary, he states in his report that it was necessary to make certain factual assumptions about the sequence of events throughout the morning hours and the timing of those events.

Seelinger bases his third conclusion on the assumption that the initial fight with Nez caused all of the head injuries which lead to Williams' death. This is evident from the language used throughout Seelinger's reports, as well as his evidentiary hearing testimony. For example, in issue three, Seelinger addresses when "the injuries" became fatal and reaches the conclusion that "the injuries" were irreversible by the time Foghorn returned with the others to Turtle Rock. This conclusion assumes that "the injuries" of the initial attack included the head injuries eventually causing

Williams' death. There is evidence, however, that Williams' head hit the ground when the three men removed him from the truck. Although Seelinger's July 11, 2005 report mentions this fact, see Seelinger's July 11, 2005 Report at 5, Seelinger does discuss whether or how this incident affected Williams' head injuries.

Because Seelinger has not provided the Court with any independent scientific methodology for his conclusion that the fatal head injuries occurred in the Nez fight, the Court must find that Seelinger is assuming all of the injuries that Williams showed when he arrived at the hospital occurred in the initial fight with Nez. Seelinger has not explained to the Court any other basis upon which he is making his conclusion, so the Court must thus assume he is relying solely on assumptions of how the particular events during those early morning hours unfolded. It is impermissible for Seelinger to provide an expert opinion that Foghorn's actions did not contribute to Williams' death if he cannot verify with any independent scientific methodology the sequence of events. Seelinger admits that he cannot establish which head injury occurred first. Without providing a scientific basis to support the conclusion that none of the three mens' actions once they returned to Turtle Rock contributed to Williams' death, Seelinger cannot testify about that conclusion to the jury.

It is permissible, however, for Seelinger to testify, with the disclaimer that he is assuming all fatal head injuries with which Williams showed up at the hospital occurred in the Nez fight, about the implications of not having immediate medical treatment of serious head injuries. Seelinger cannot rule out, to a reasonable medical probability, that some of Williams' injuries occurred from events subsequent to the Nez fight. Seelinger can testify that, assuming all of the injuries that Williams showed when he arrived at the hospital occurred from the Nez fight, Williams would not have survived. The Court, however, will not allow Seelinger to testify that to a reasonable medical

probability Williams' injuries had reached an irreversible state by the time the three men returned to Turtle Rock unless he also states that there is no way to determine which blows caused what injuries and that he is assuming the Nez fight caused all the injuries Williams showed at the hospital.

Seelinger concedes that the extrapolation involves a complex situation with multiple variables. One of these variables -- in addition to being intoxicated and hypothermic -- is that the three men subjected Williams to additional abuse after the initial fight with Nez. Seelinger admits that secondary events after an initial injury can worsen the situation, and that there were no scientific data or measurements available to document Williams' condition throughout the evening during the various events. Seelinger's conclusion that, by 3:30 a.m., Williams' injuries were irreversible, assumes, therefore, that the events occurring after the three men returned to Turtle Rock, did not contribute to Williams' death. As the United States points out, however, "[t]here is no scientific data whatsoever to establish clear lines between what injuries happened after the first attack and what happened with Defendant Foghorn arrived." In addition, the conclusion that the injuries reached an irreversible state by 3:30 a.m. presumes as accurate the events allegedly occurring before that time. Seelinger readily admits that there is no exact timetable of events and that how the incidents unfolded during those early morning hours cannot be pinned down with accuracy. The Court will therefore exclude Seelinger's testimony that, by 3:30 a.m., Williams' injuries had reached an irreversible state unless he states that he is assuming that all of the injuries that Williams showed at the hospital resulted from the Nez fight and unless Seelinger also states that there is no way to determine which blows caused what injuries.

As a neurologist, Seelinger is qualified to testify about a body's response to severe blunt force trauma to the head, and how the effects of cold, intoxication, and lactic acidosis may effect the

victim's condition. The Court will therefore permit Seelinger to respond to questions, couched in terms of a hypothetical, about whether hitting a person in the head with a rock -- or hitting his head on the ground while being pulled from a pickup truck -- could cause a subdural hematoma, a brain laceration, and/or a brain contusion. The Court will also permit Seelinger to testify about how head injuries develop over time to support the conclusion that, as time elapses, the probability of survival lessens. Seelinger may also testify that, if significant blunt force trauma occurs, brain swelling is likely to begin and develop after the blunt force injury. It is also permissible for Seelinger to estimate how long it would take for appropriate medical treatment to be available, and how such a situation could affect the probability of a person's survival suffering from severe head injuries. Seelinger may also testify that, at the time the three men left Williams at Two Grey Hills, to a reasonable degree of medical probability, Williams' injuries had reached an irreversible state.

The United States criticizes the lack of published materials on this methodology. Doctors, however, routinely face the situation in which they patch together a patient's history and tailor the patient's treatment based on the conclusions reached as a result of that prior history. The difference between this routine practice and Seelinger's testimony at issue in this case is that, rather than projecting the appropriate treatment in the future, Seelinger is extrapolating backwards. Seelinger, however, may opine about, after receiving a description of injuries inflicted, the extent of the injuries and the necessary treatment. It is impermissible, however, for Seelinger to isolate a series of alleged factual occurrences -- Williams' and Nez' fight -- assume that these occurrences and not the later incidents ultimately caused Williams' death, and conclude that Williams was beyond the possibility of survival once Foghorn arrived, unless he also states that there is no way to determine which blows caused what injuries and that he is assuming the Nez fight caused all the injuries Williams showed at

the hospital. Seelinger's direct examination will proceed according to the directions in this opinion.

IT IS ORDERED that the United States' Motions in Limine are granted in part and denied

in part. The Court has addressed the scope Seelinger's testimony before trial.

UNITED STATES DISTRICT JUDGE

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